

2.15 MISSING SCIENCE PACKETS

For documentation purposes, the images below are shown to provide insight as to what occurs when an image has missing science packets. The missing packets were seen during camera testing and were linked to buffer constraints with the Ground Support Equipment (GSE). The missing packets cannot be traced to camera performance. Images are shown for the following cases :

- 1) 1x1, Uncompressed, 1 missing packet - Figure 2.15-1
- 2) 2x2, Lossy , 8 LSB, no missing packets - Figure 2.15-2
- 3) 2x2, Lossy, 8 LSB, many missing packets - Figure 2.15-3
- 4) 1x1, Lossy, 12-8 Table, 2 missing packets - Figure 2.15-4

For uncompressed and lossless images, a missing science packet would show up as represented in Figure 2.15-1, where the missing data is filled in with 0 DN and shows up as a black line. The extent of the line(s) effected by a missing packet would depend upon the image parameters (e.g. summation mode). As can be seen by Figure 2.15-2 through Figure 2.15-4, missing packets for a Lossy compressed image provide interesting results for the decompressed image.



Figure 2.15-1 - 1x1 Uncompressed Image with 1 Missing Packet

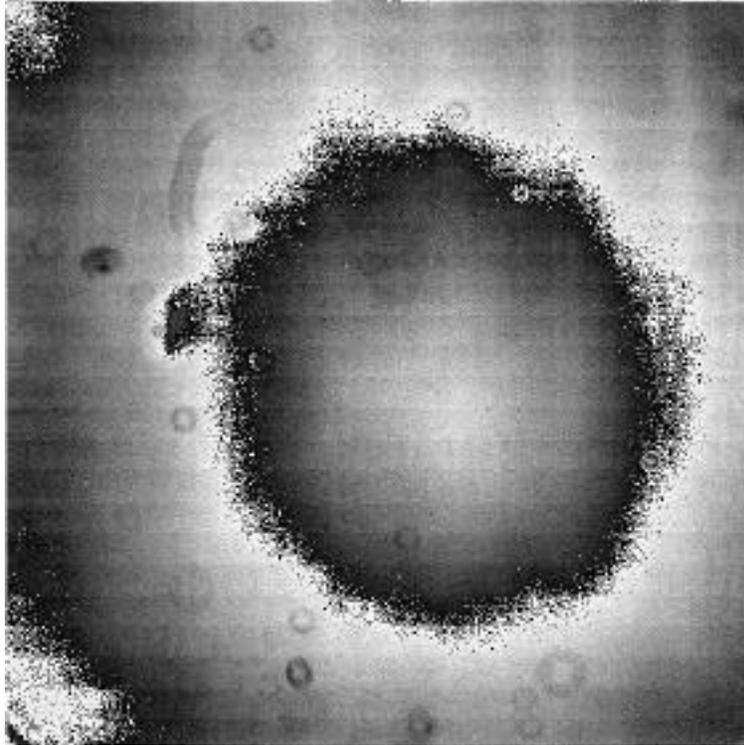


Figure 2.15-2- 2X2 Lossy Image with No Missing Packets

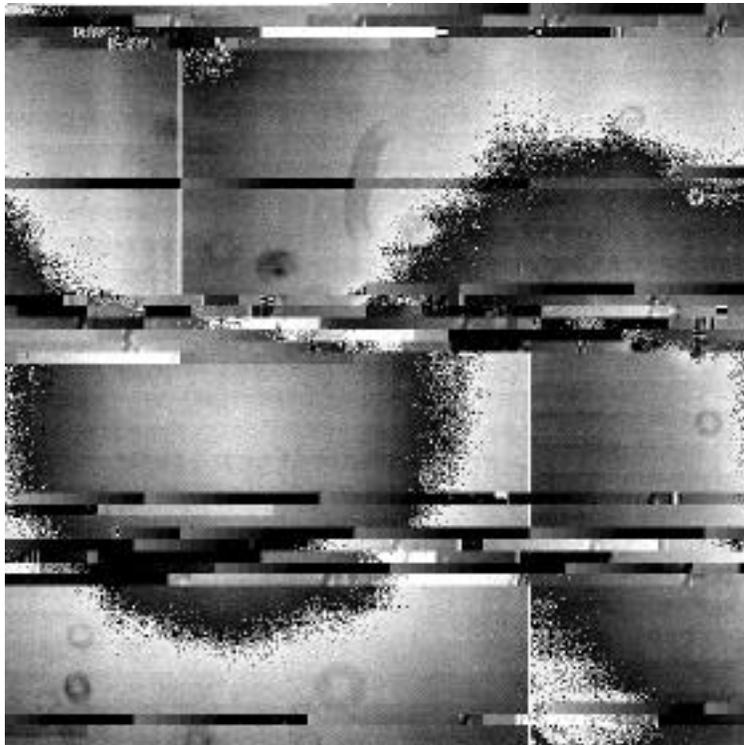


Figure 2.15-3 - 2x2 Lossy Image with Many Missing Packets

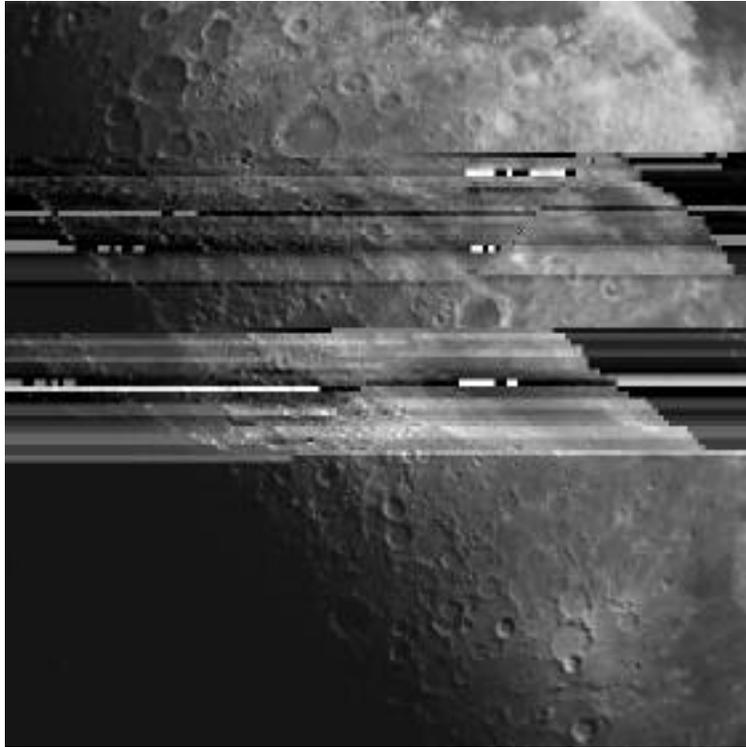


Figure 2.15-4 - 1x1 Lossy Image with 2 Missing Packets